

WHAT I CLAIM IS:

1. Retainer apparatus for holding down conduits in a trench having a bottom and a pair of sides comprising in combination:

a center bridge portion disposed on top of the conduits in the trench, and

a pair of end plates secured to the center bridge portion and disposed against the sides of the trench.
2. The apparatus of claim 1 in which the end plates include means for securing the end plates to the sides of the trench.
3. The apparatus of claim 2 in which the means for securing the end plates to the sides of the trench include barbs extending outwardly from the end plates.
4. The apparatus of claim 2 in which the barbs extend generally outwardly and upwardly from the end plates.
5. The apparatus of claim 3 in which the barbs are in the configuration of

louvers.

6. The apparatus of claim 5 in which the barbs are disposed generally parallel to each other.

7. The apparatus of claim 3 in which the barbs are generally conically configured.

8. The apparatus of claim 1 in which the end plates are generally of a rectangular configuration.

9. The apparatus of claim 1 in which the end plates include apertures.

10. The apparatus of claim 9 which includes spikes extending through the apertures for anchoring the end plates in non-cohesive soil.

11. The apparatus of claim 1 in which the center bridge portion comprises a single member.

12. The apparatus of claim 11 in which the center bridge portion has a generally circular cross section.

13. The apparatus of claim 1 in which the center bridge portion includes telescoping members.

14. The apparatus of claim 1 in which the end plates include locking elements, and the center bridge portion includes recesses for receiving the locking element for securing the center bridge portion to the end plates.

15. The apparatus of claim 1 in which the end plates include sockets, and the center bridge portion includes ends extending into the sockets for securing the center bridge portion to the end plates.

16. The apparatus of claim 1 which further includes means for securing the conduits to the center bridge portion.

17. The apparatus of claim 16 in which the means for securing the conduits to the center bridge portion includes tie elements.

18. The apparatus of claim 16 in which the means for securing the conduits to the center bridge portion includes a conduit form for receiving the conduits, and the conduits are disposed on the conduit form.

19. The apparatus of claim 18 which further includes a second retainer apparatus having a second pair of end plates and a second center bridge portion extending between the second pair of end plates, and the conduit form means is disposed on the center portion of the second retainer apparatus.

20. The apparatus of claim 18 in which the conduit form includes a pair of sides, and a top secured to the pair of sides and disposed on the center bridge portion.

21. The apparatus of claim 20 in which the conduit form further includes scallops on the top for receiving the conduits.

22. The apparatus of claim 20 in which the conduit form further includes vee grooves on the top for receiving the conduits.

23. The apparatus of claim 2 in which the trench includes non-cohesive soil and the means for securing the pair of end plates to the sides of the trench includes apertures in the end plates and relatively long fastening elements extending through the apertures and into the non-cohesive soil.

24. Apparatus for retaining conduits in a trench having a bottom and a pair of sides comprising in combination:

a first bridge assembly including

a first pair of end plates disposed against the sides of the trench,

first means for securing the pair of end plates to the sides of the trench,

and

first center bridge means disposed on the conduits and secured to the first pair of end plates.

25. The apparatus of claim 24 in which the means for securing the first pair of end plates to the sides of the trench include barb tabs on the end plates.

26. The apparatus of claim 24 in which the first means for securing the first pair of end plates to the sides of the trench includes spikes extending through the end plates and into the sides of the trench.

27. The apparatus of claim 24 in which the first center bridge means includes telescoping elements.

28. The apparatus of claim 24 in which the first center bridge means includes a first center bridge and straps for securing the conduits to the first center bridge.

29. The apparatus of claim 24 in which the first center bridge means further includes a first center bridge and a conduit form disposed on the first center bridge, and the conduits are disposed on the conduit form.

30. The apparatus of claim 29 in which the conduit form includes a pair of
of
sides and a top secured to the pair of sides.

31. The apparatus of claim 30 in which the conduit form further includes

scallops on the top, and the conduits are disposed in the scallops.

32. The apparatus of claim 30 in which the conduit form further includes vee grooves on the top, and the conduits are disposed in the vee grooves.

33. The apparatus of claim 29 which further includes a second bridge assembly, including
a second pair of end plates disposed against the sides of the trench,
second means for securing the end plates to the sides of the trench, and
second bridge means secured to the second pair of end plates and disposed on the conduits.